

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11779 - L2 Version 2  
Chandra X-Ray Center

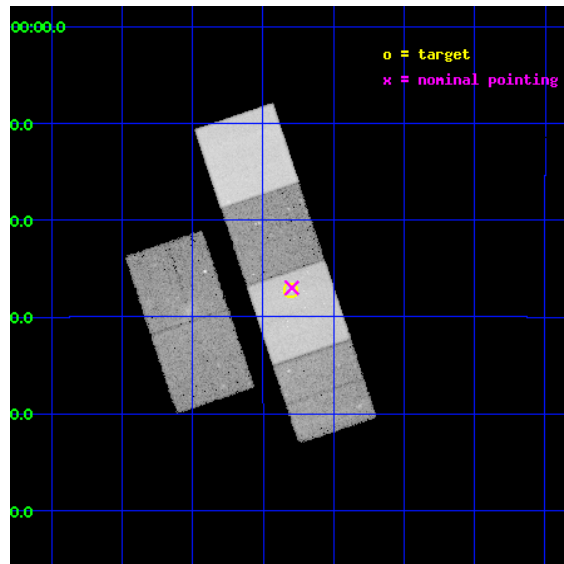
L2 Processing Date : Jun 17 2012

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# 1 Front

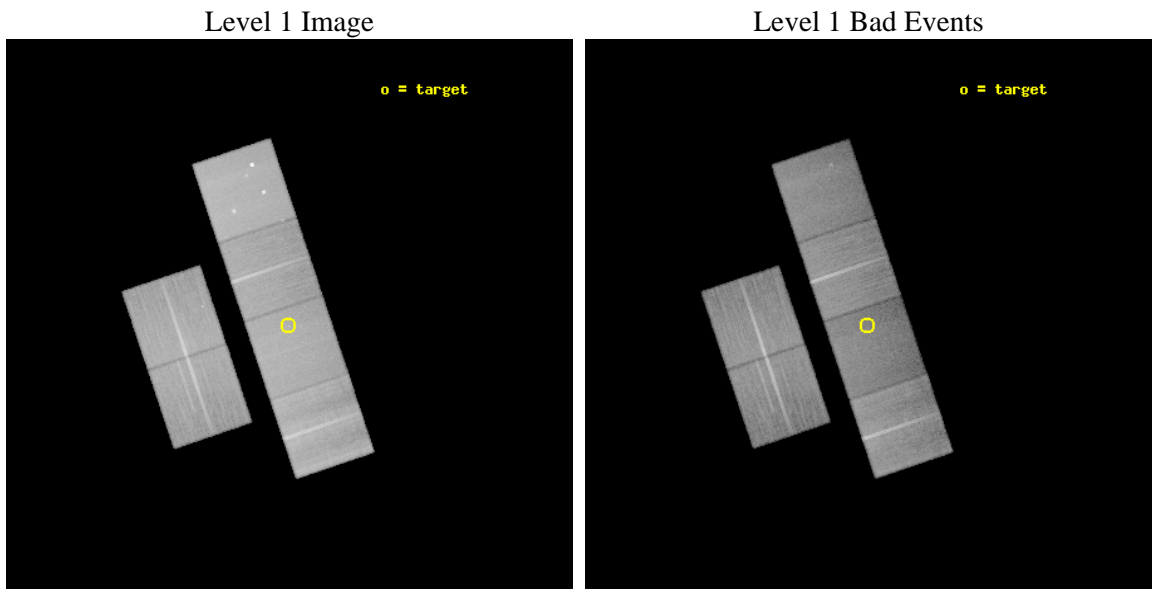
seq_num	900914	Sequence number
obs_id	11779	Observation id
title	COMBH: Chandra Observations of M-sigma Black Holes	Proposal title
observer	Dr. Kayhan Gultekin	Principal investigator
object	NGC4742	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.95	Observer's specified target RA [deg]
dec_targ	-10.454722	Observer's specified target Dec [deg]
ra_nom	192.94888637962	Nominal RA [deg]
dec_nom	-10.449994341669	Nominal Dec [deg]
roll_nom	71.429648583868	Nominal Roll [deg]
revision	2	Processing version of data
ontime	33081.599876821	Sum of GTIs [s]
livetime	32662.700739833	Livetime [s]
ontime2	33081.599876821	Sum of GTIs [s]
ontime3	33078.358876646	Sum of GTIs [s]
ontime5	33081.599876821	Sum of GTIs [s]
ontime6	33081.599876821	Sum of GTIs [s]
ontime7	33081.599876821	Sum of GTIs [s]
ontime8	33081.599876821	Sum of GTIs [s]
l2events	449853	Number of level 2 events



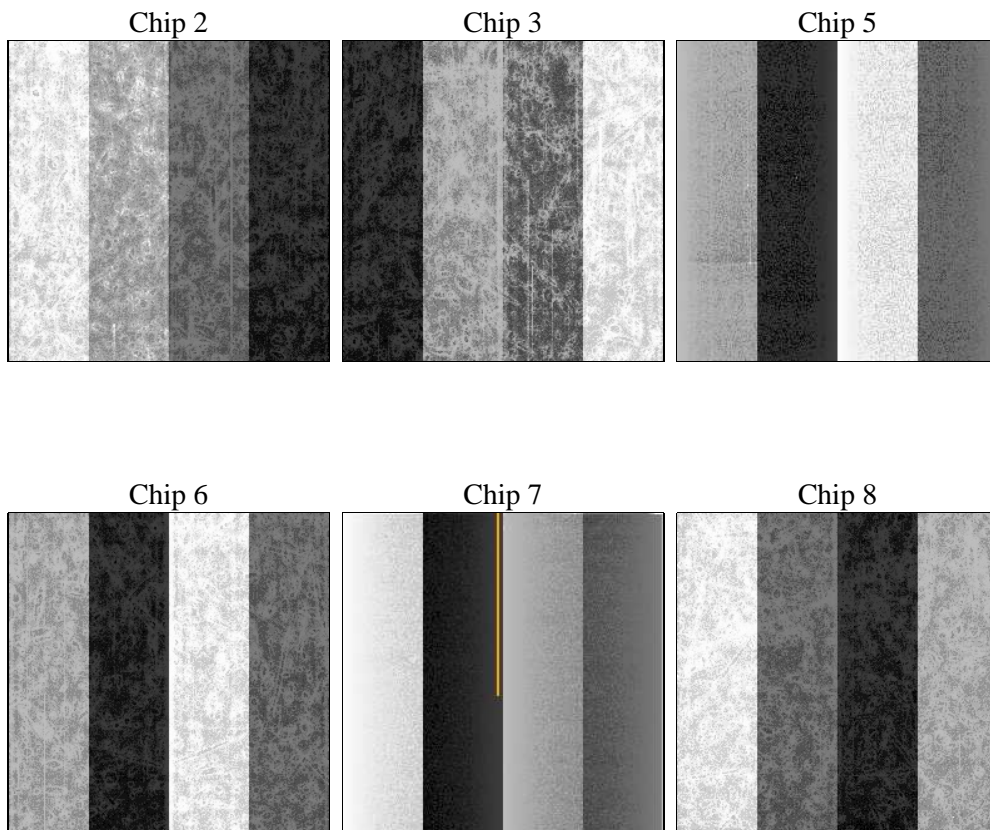
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	33000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	33081.599876821	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime2	33081.599876821	Sum of GTIs [s]
date	2012-06-17T06:15:54	Date and time of file creation	ontime3	33078.358876646	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	33081.599876821	Sum of GTIs [s]
			ontime6	33081.599876821	Sum of GTIs [s]
			ontime7	33081.599876821	Sum of GTIs [s]
			ontime8	33081.599876821	Sum of GTIs [s]
			l1events	1981603	Number of level 1 events

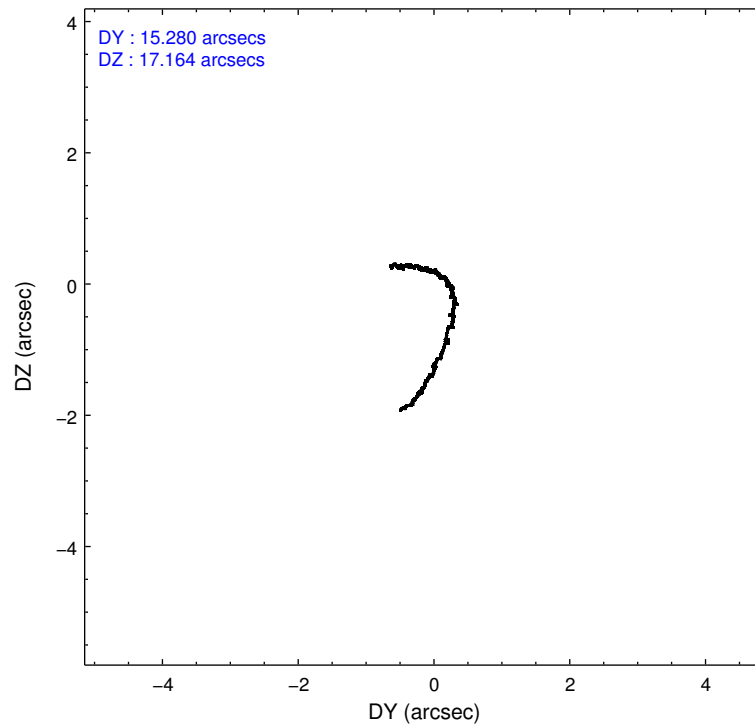
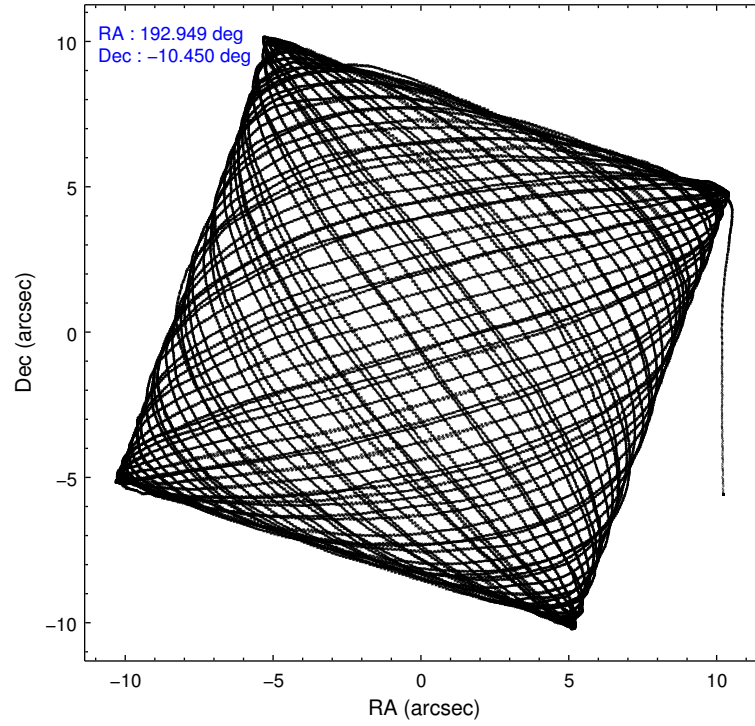
### 2.1.4 Events

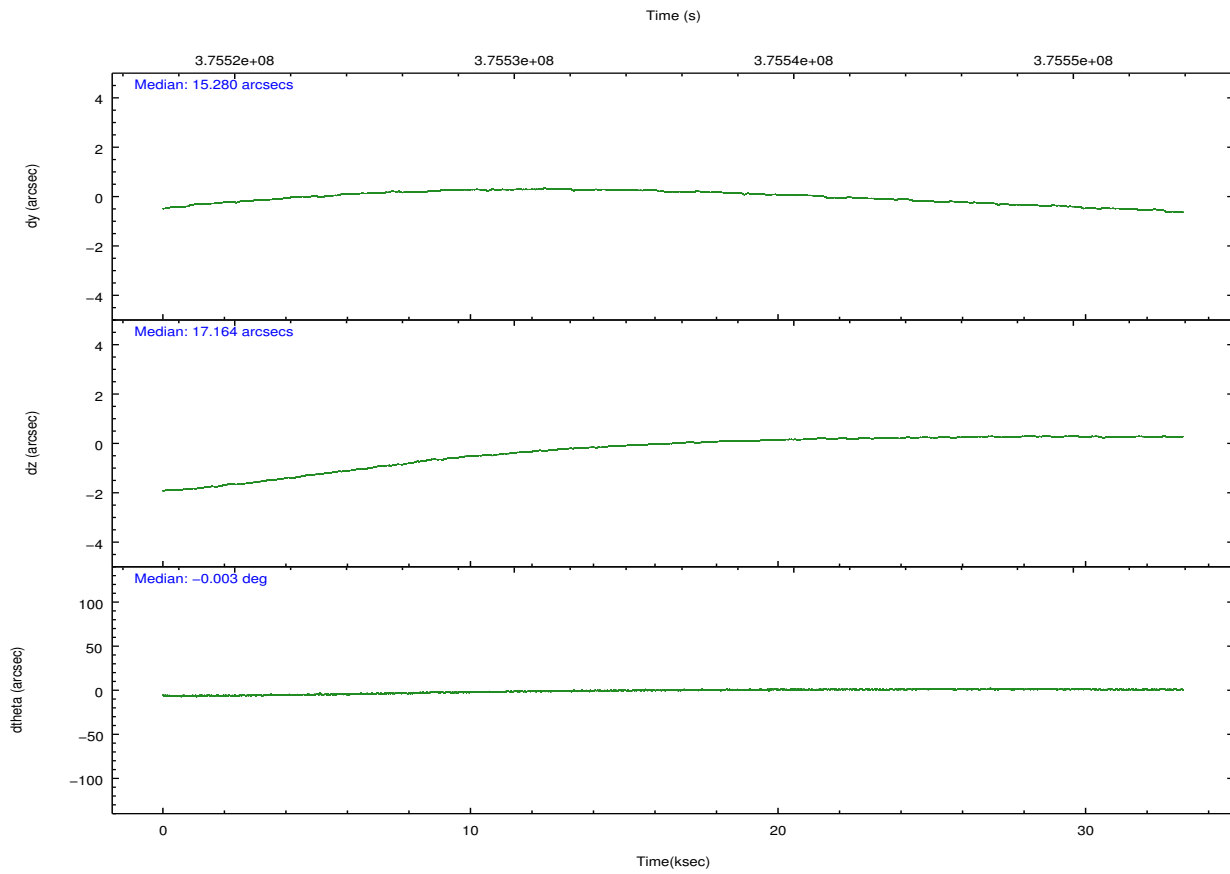
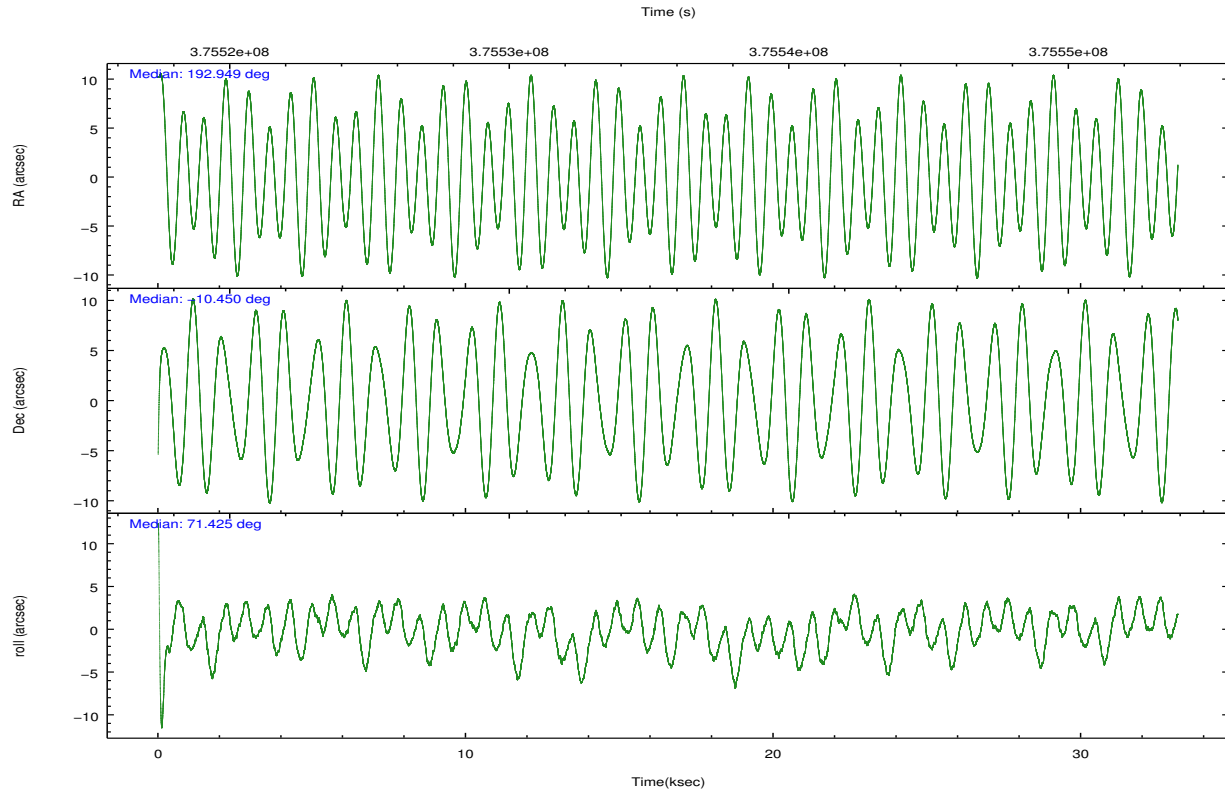
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	309013	278472	414584	288153	328619	362762	grade 0 events	13449	10501	24009	10867	14559	28503
rejected events	276420	250243	204175	257534	178023	269888		4%	3%	5%	3%	4%	7%
rejected %	89%	89%	49%	89%	54%	74%	grade 1 events	213	166	1231	175	437	314
								0%	0%	0%	0%	0%	0%
							grade 2 events	7460	6152	64153	6775	31184	21550
								2%	2%	15%	2%	9%	5%
							grade 3 events	3051	3051	8146	3212	13441	9779
								0%	1%	1%	1%	4%	2%
							grade 4 events	3254	2970	8044	3170	13375	8970
								1%	1%	1%	1%	4%	2%
							grade 5 events	10237	11789	31941	11872	34261	17496
								3%	4%	7%	4%	10%	4%
							grade 6 events	5385	5558	106087	6598	78053	24078
								1%	1%	25%	2%	23%	6%
							grade 7 events	265964	238285	170973	245484	143309	252072
								86%	85%	41%	85%	43%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	192.954770	192.9488863796231	CCD I2 on	O1	Y
[deg] Pointing Dec	-10.476725	-10.44999434166853	CCD I3 on	O2	Y
[deg] Pointing Roll	71.274076	71.42964858386807	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	375519269.184000	375518242.35149	CCD S5 on	N	N
Observation start date	2009-11-25T06:53:23	2009-11-25T06:37:22	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	375552269.184000	375553303.50326	On-chip summing requested	N	N
Observation end date	2009-11-25T16:03:23	2009-11-25T16:21:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



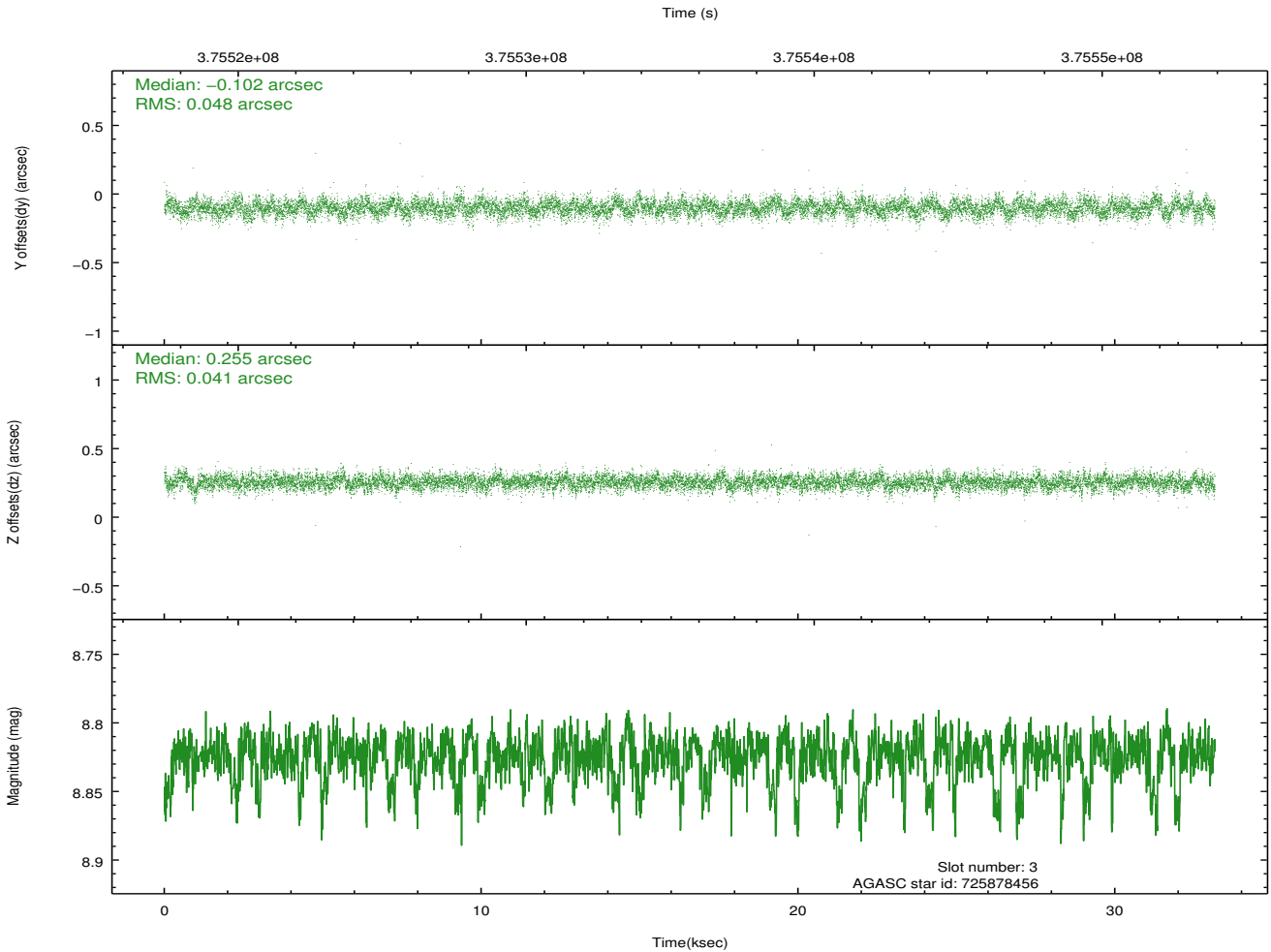
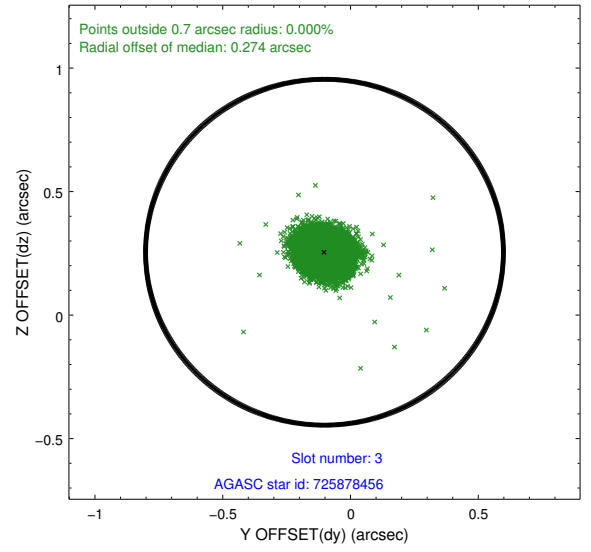
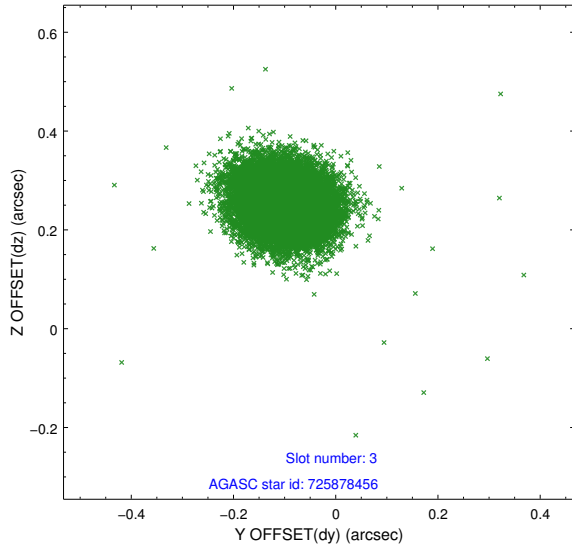


### Slot Statistics

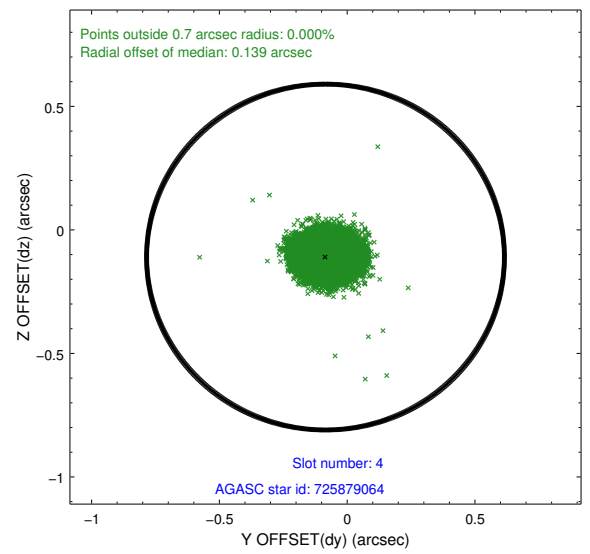
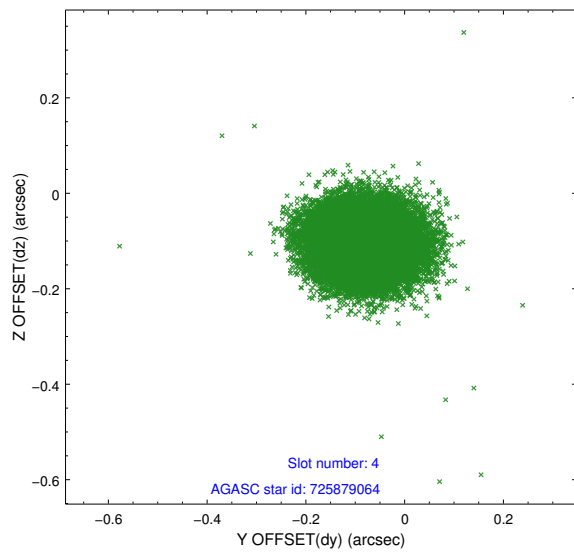
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	8087	-0.072	-0.033	0.018	0.032	0.000000	0.000000	-768.31	-1738.24
1	FID	ACIS-S-4	6.98	8087	0.174	0.044	0.009	0.014	0.000000	0.000000	2145.21	170.22
2	FID	ACIS-S-5	7.01	8086	-0.129	-0.000	0.024	0.033	0.000000	0.000000	-1821.12	163.95
3	GUIDE	725878456	8.82	16162	-0.102	0.255	0.066	0.108	193.306402	-10.183063	1400.87	-840.04
4	GUIDE	725879064	8.52	16162	-0.085	-0.110	0.080	0.127	193.520036	-10.106145	1905.40	-1468.86
5	GUIDE	725879368	8.91	16157	-0.249	-0.027	0.086	0.137	193.691386	-10.179770	1847.96	-2129.31
6	GUIDE	725884664	9.90	16105	0.193	-0.171	0.127	0.208	192.277982	-10.931265	-2319.73	1739.45
7	GUIDE	725877456	10.03	16144	0.244	0.057	0.159	0.269	193.593413	-10.726042	-126.79	-2427.66

## 2.4 Star Slots

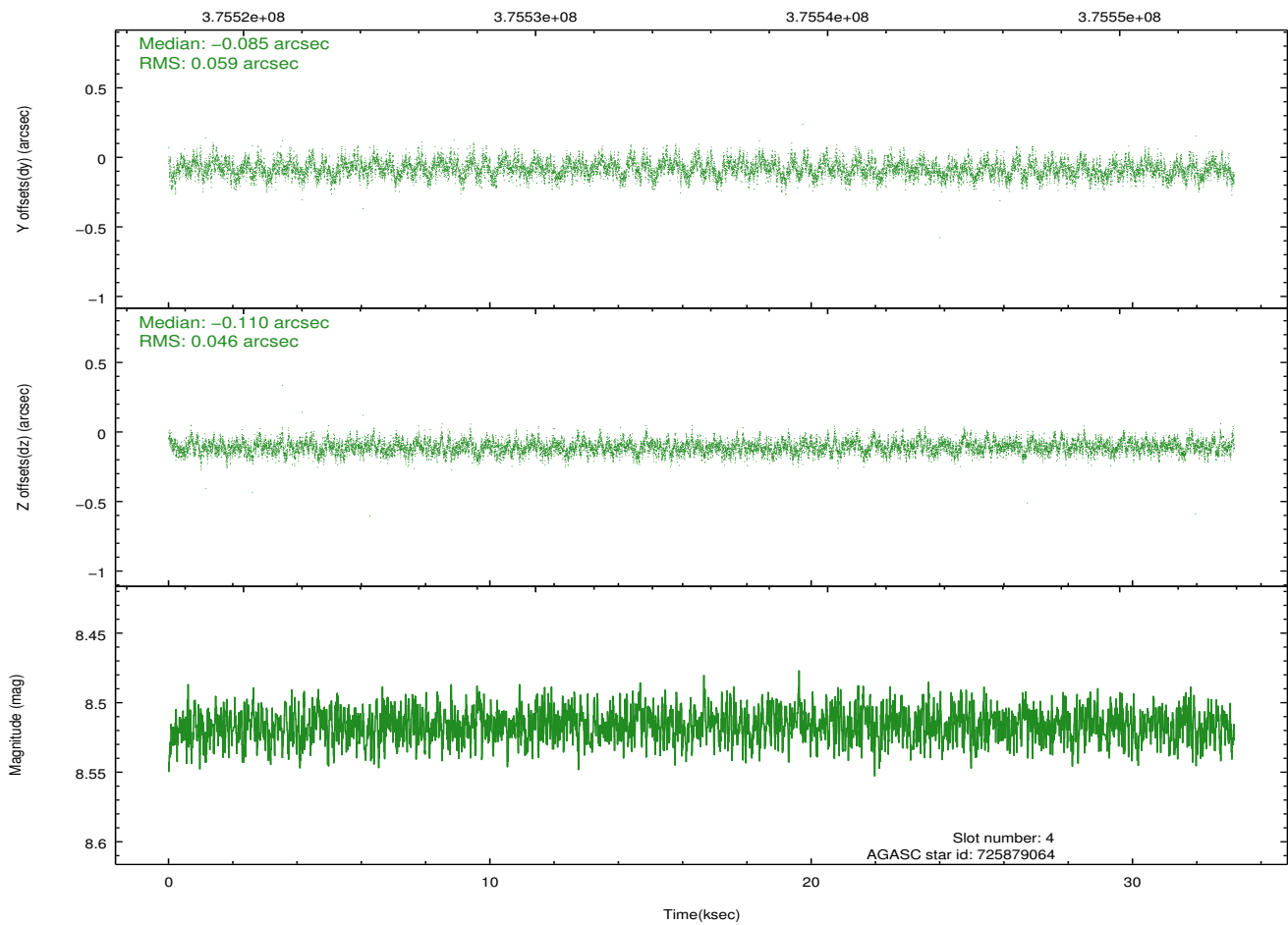
### 2.4.1 Slot 3



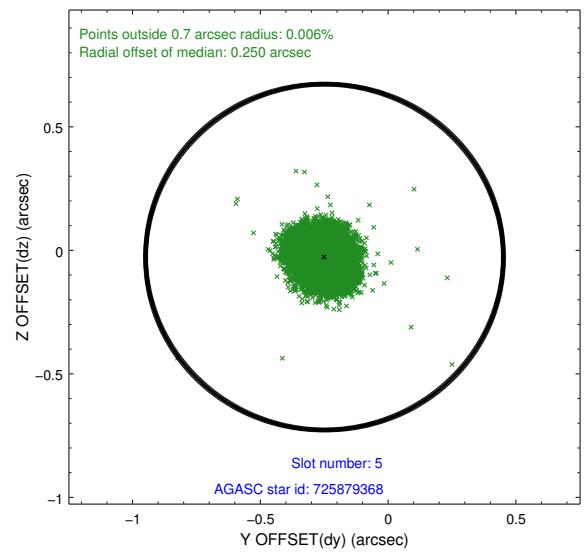
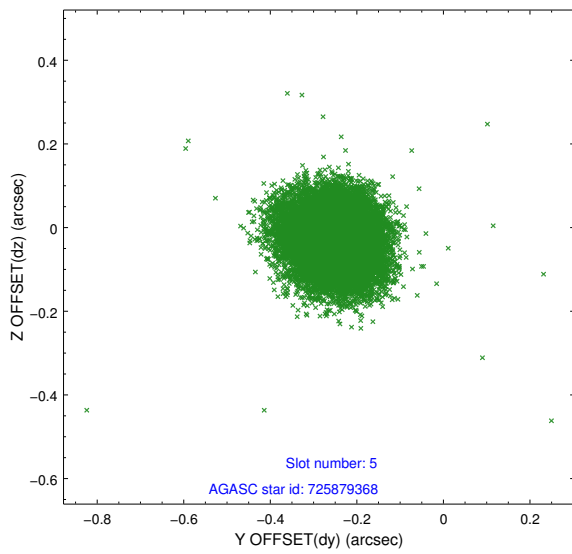
## 2.4.2 Slot 4



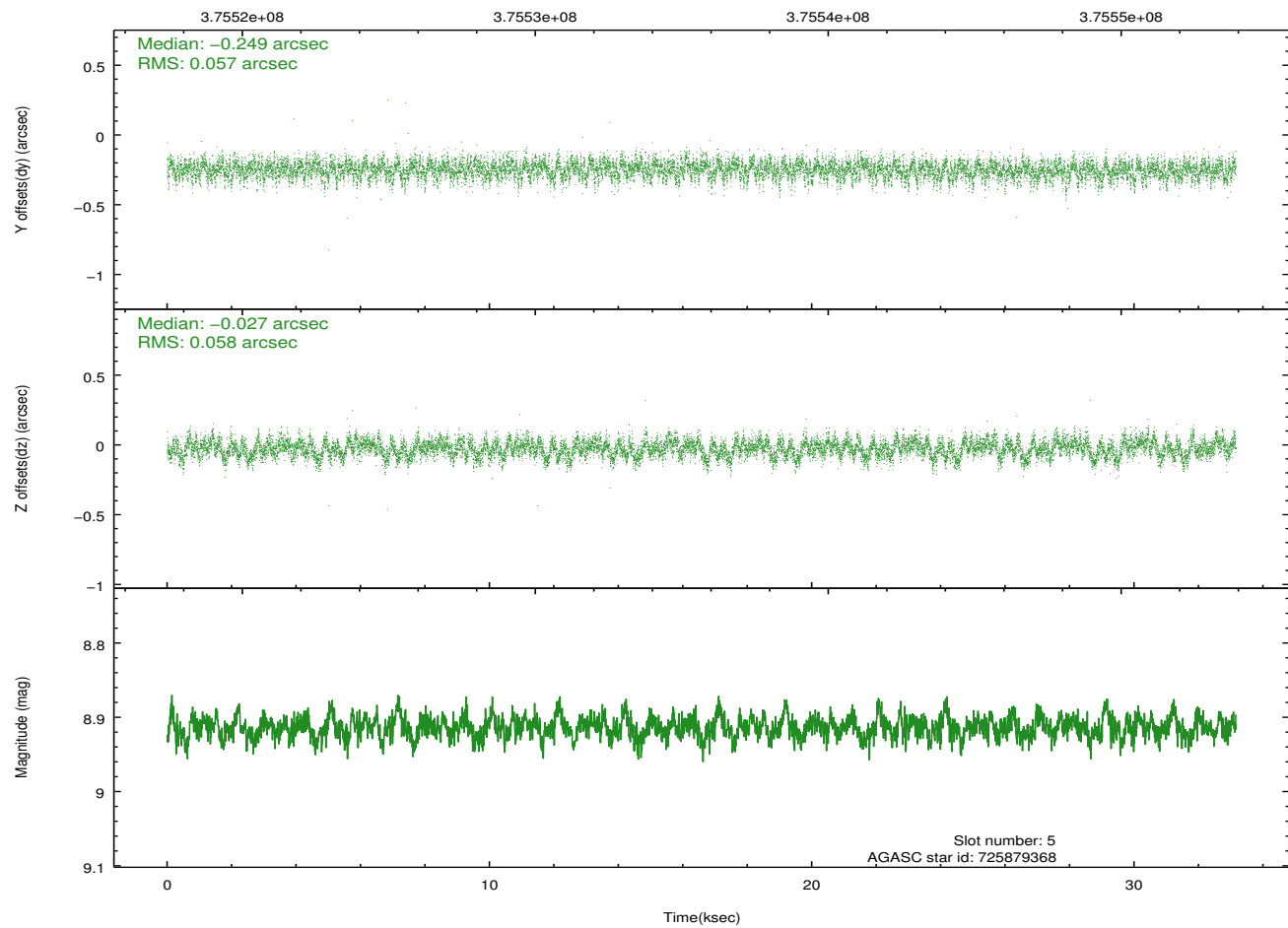
Time (s)



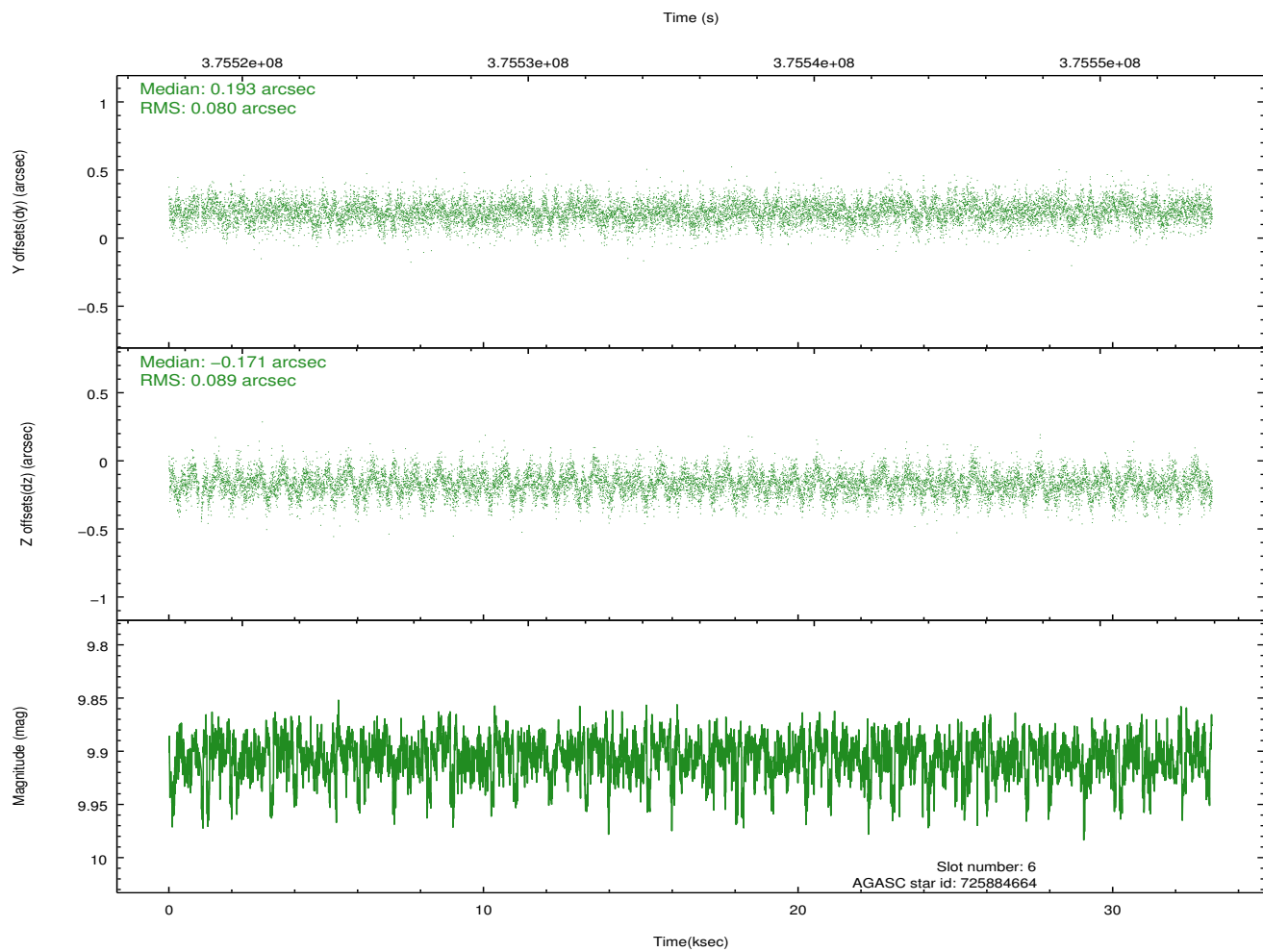
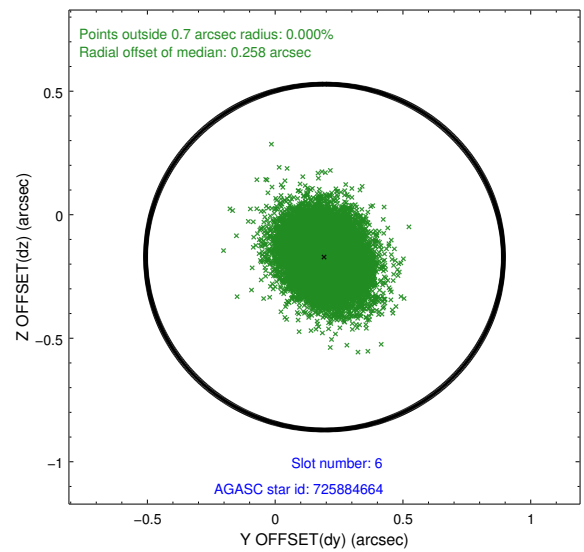
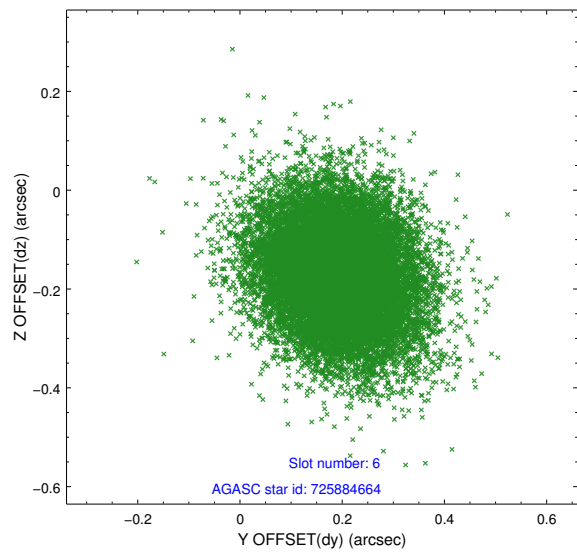
### 2.4.3 Slot 5



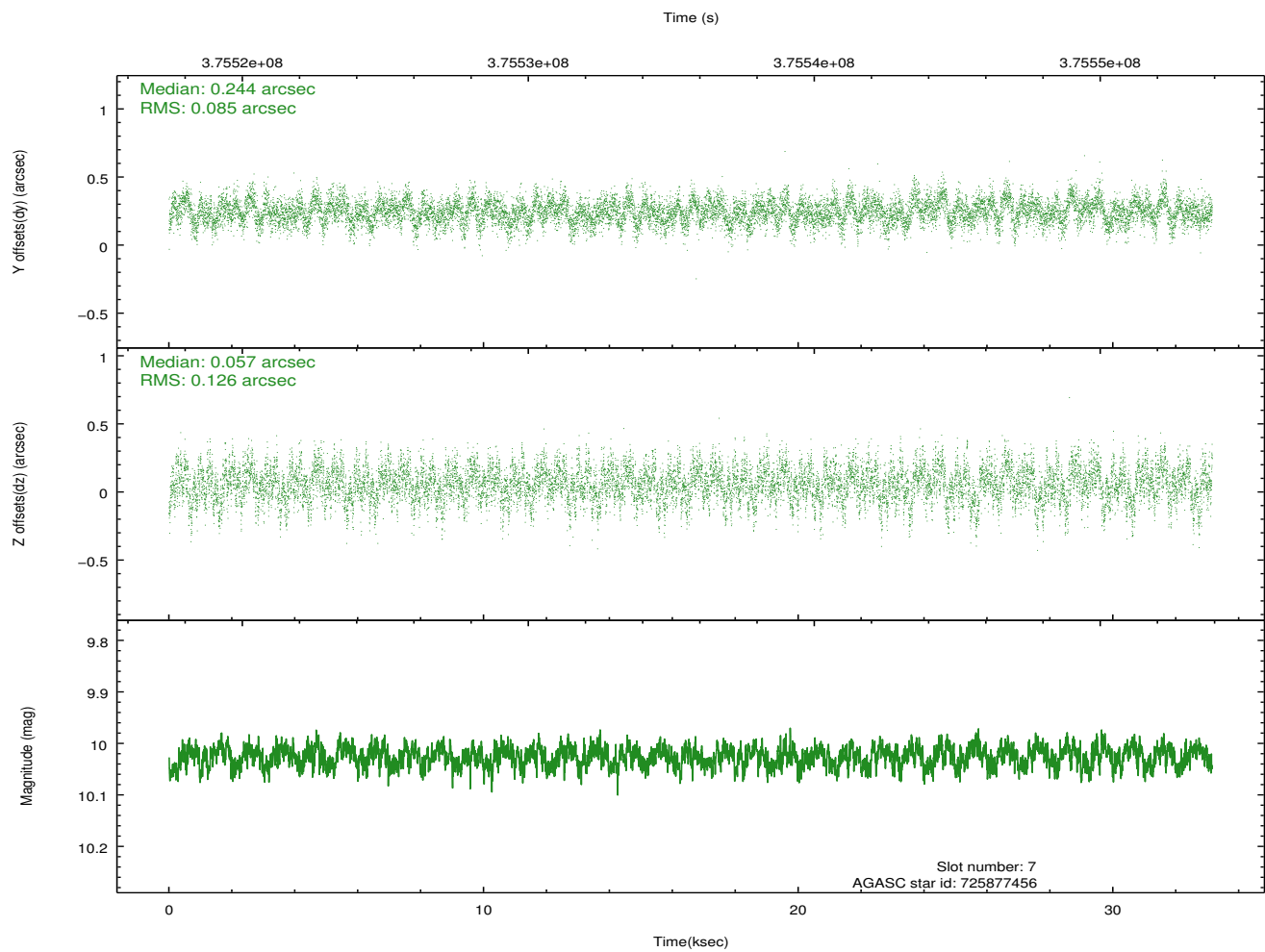
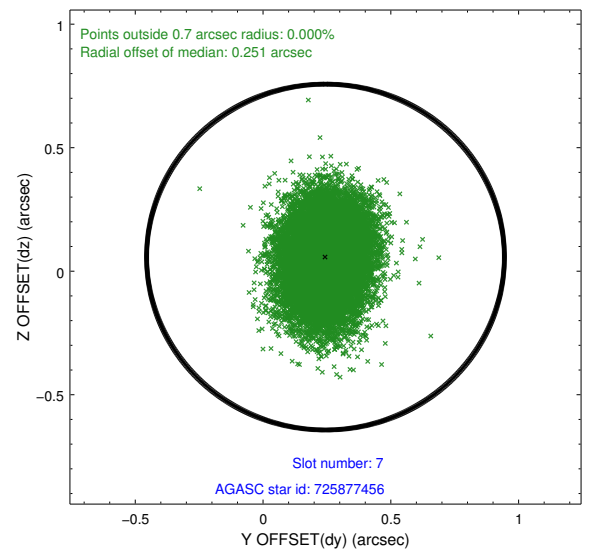
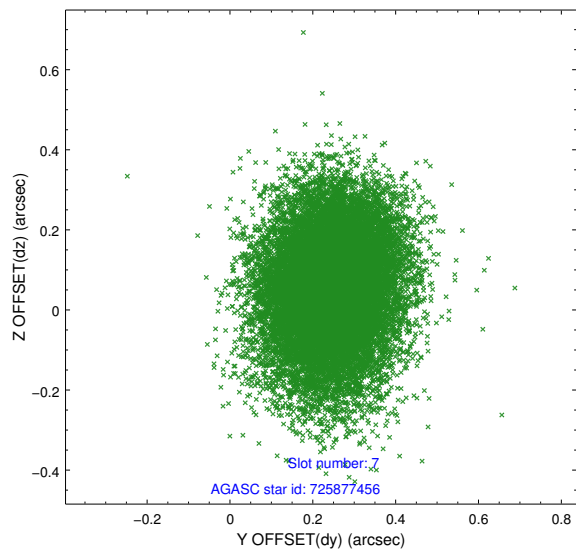
Time (s)



## 2.4.4 Slot 6

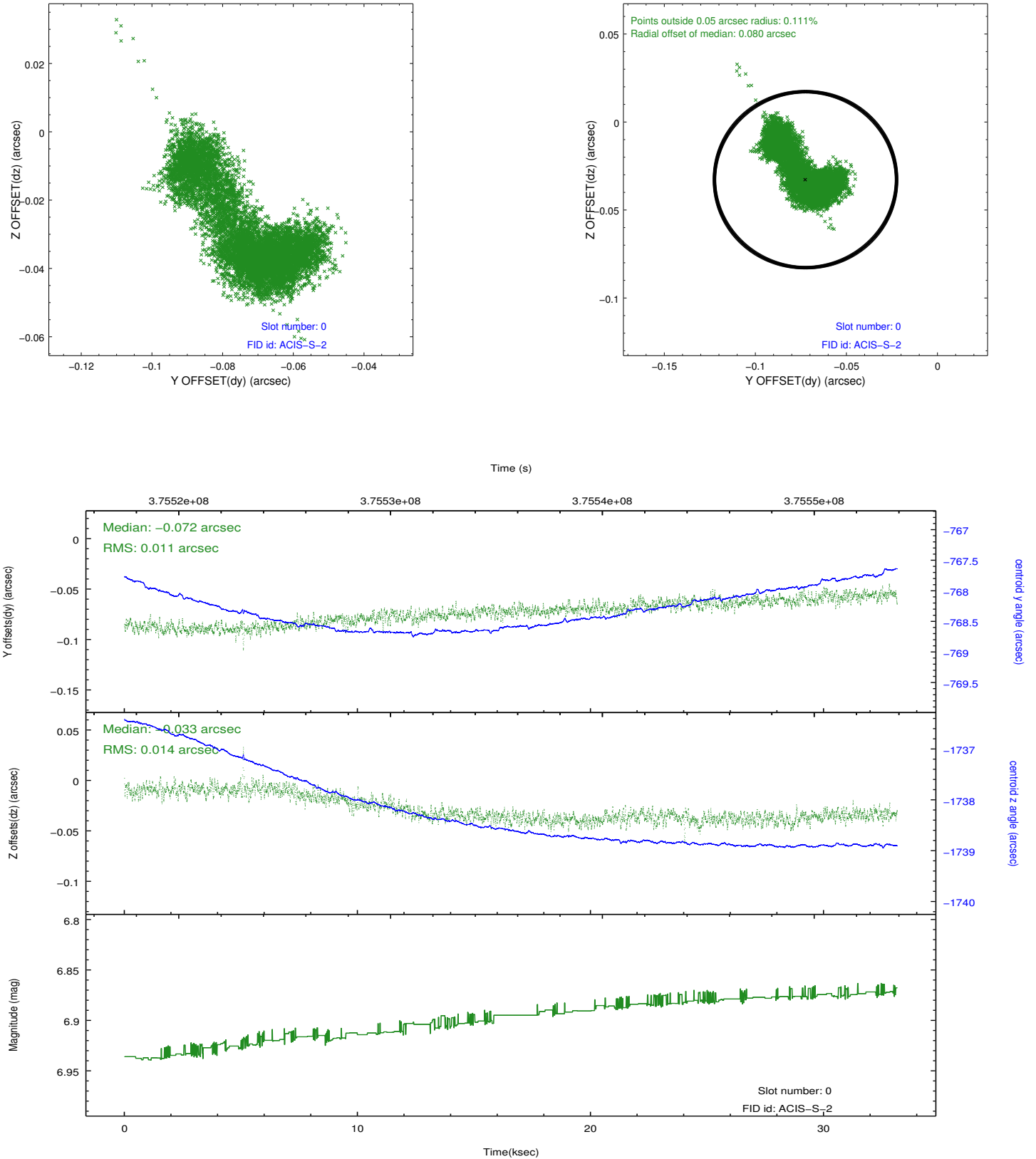


## 2.4.5 Slot 7

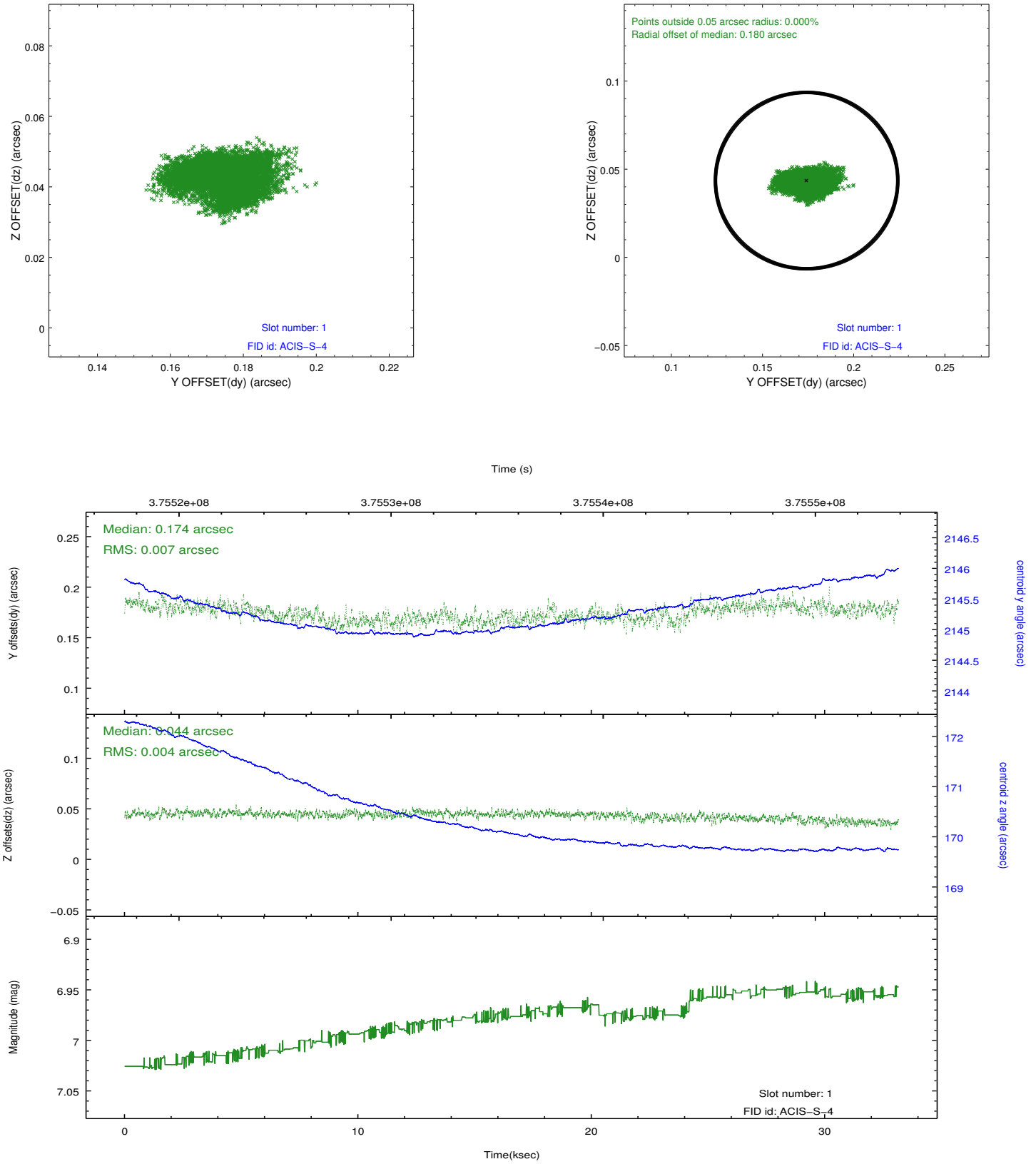


## 2.5 FID Slots

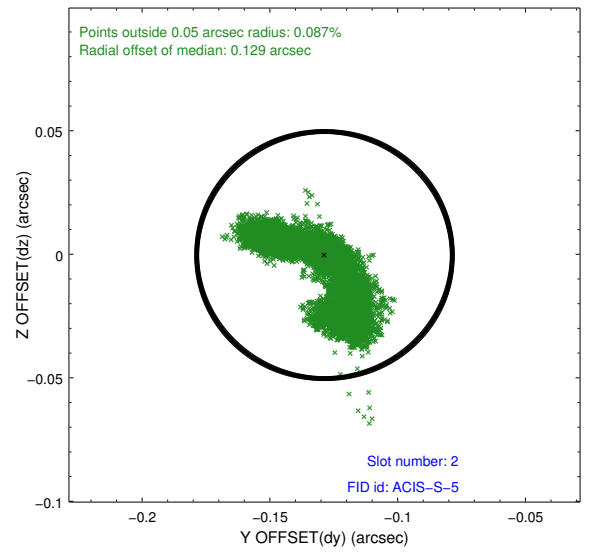
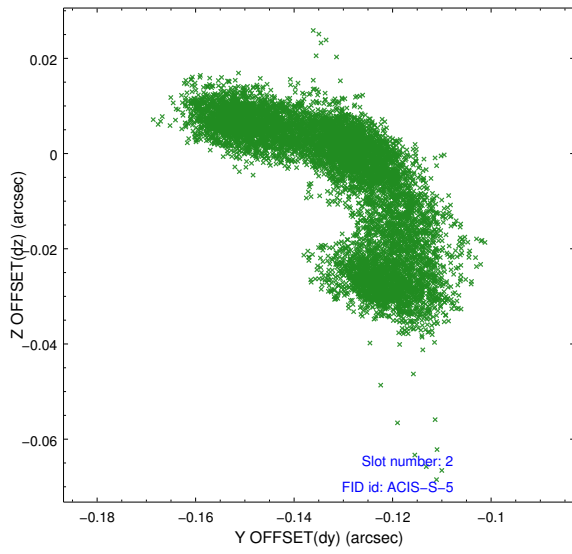
### 2.5.1 Slot 0



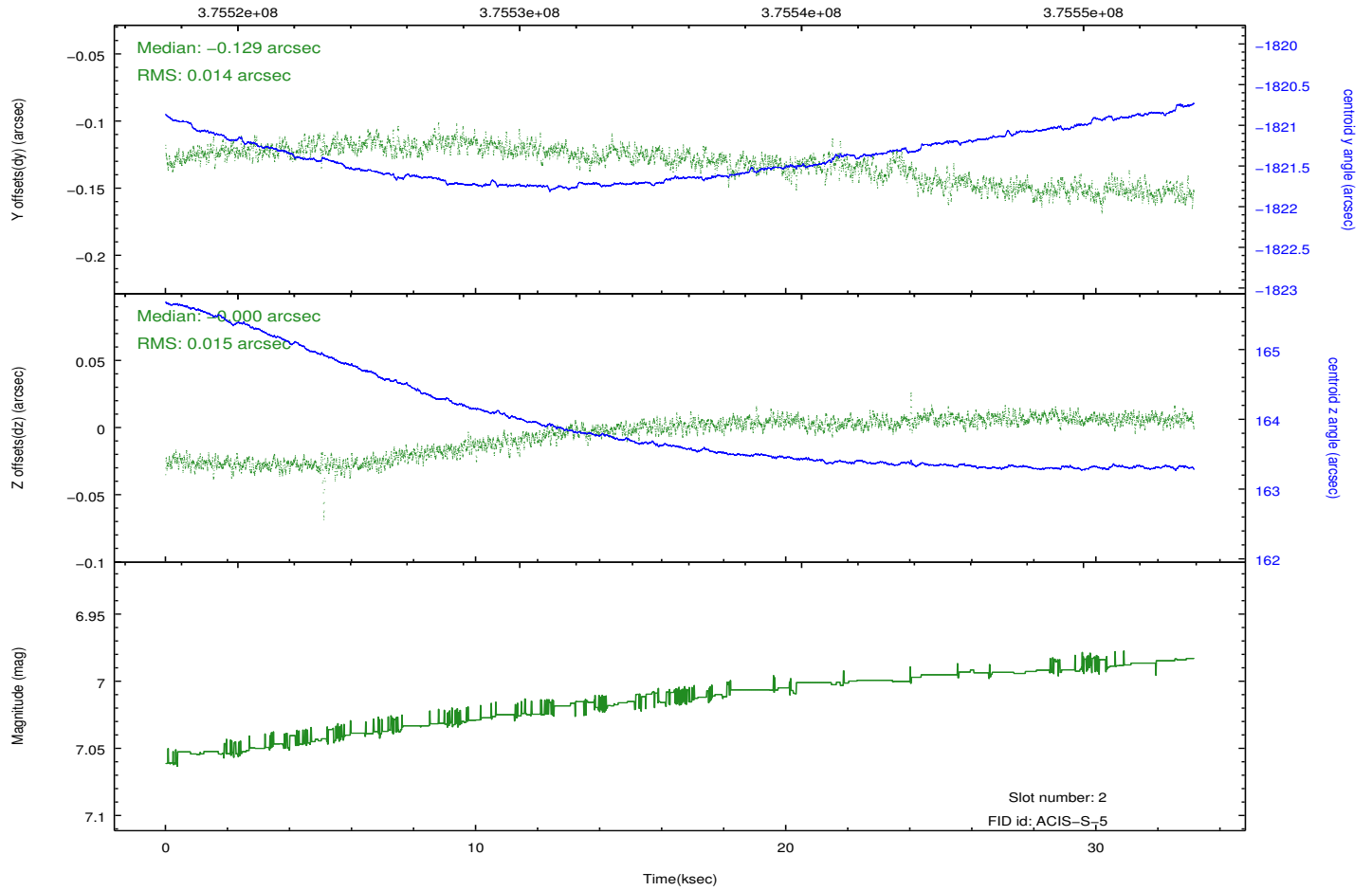
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.081599876821

## A.2 Comments

Joint proposal with NRAO.